The methods employed for *a*, *b* and *c* have been described[2,3]. In the case of *d*, three groups each of six animals were taken; two received 100 and 400 mmgm./kgm., respectively, by intraperitoneal injection; the third group was the control. The animals were killed at intervals for examination.

The main results may be summarized as follows.

(1) Progressive fall in mitotic index. This was observed even with very low concentrations (5 mmgm./kgm.) in the chick embryo tissues, but the onion root was less sensitive. In the rabbits, the effect was most marked in the lymph glands and spleen.

(2) Retardation of the initial phases of mitosis, as indicated by a progressive increase in the relative proportions of prophases compared with anaphases and telophases. This occurred in all types of cell with relatively high dosages.

(3) Cytoplasmic and nuclear vacuolation, nuclear hypertrophy, pycnosis, caryorexis and caryolysis in actively proliferating cells, but little effect in non-proliferating cells. The germinative tissue of the rabbit testis was exceptional in that it was also unaffected.

(4) Chromosome lesions, adhesions, breakages and bridges with eccentric fragments.

(5) Absence of effects upon the spindle, in contradistinction[4] to actinomycin *C*.

These effects suggest that actinomycin *M* is a mitotic poison acting mainly on the chromosomes in preprophase. It may be classified as 'radiomimetic' since it simulates the action of X-rays.

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[1] Craveri, R., *Riv. Biol.*, **48**, 239 (1956); *Ann. Microbiol.*, **7**, 93 (1956).
[2] Clerici, E., Monesi, V., and Veronesi, U., *Giorn. Ital. Chemother.*, **3**, 14 (1955).
[3] Monesi, V., Veronesi, U., and Craveri, R., *Boll. Soc. Ital. Emat.*, **2**, 243 (1954). Monesi, V., and Veronesi, U., *Biol. Lat.*, **8**, 290 (1955).
[4] Hackmann, C., *Z. Krebsf.*, **58**, 607 (1952).

An Antibiotic with Fungicidal and Insecticidal Activity produced by *Streptomyces*

In the course of our investigations of antibiotic-producing *Streptomyces* a substance was isolated, from a strain of the *S. tanaschiensis* type, that could not be identified with any previously recorded antibiotic, and which was active against fungi and also against insects. We have named it 'flavensomycin'.

The organism was cultured in a medium of 2 per cent maltose, 0·5 per cent peptone and 0·25 per cent corn steep liquor in tap water at laboratory temperature, in a shaking device. Maximum production was achieved in about five days. The medium was extracted with benzene and dried *in vacuo* until precipitation occurred; the crude precipitate was washed in petroleum ether and extracted in acetone, the insoluble portion being discarded. Addition of petroleum ether (4 : 1) gave an amorphous orange-yellow precipitate, the crude flavensomycin.

Further purification was carried out in an alumina column. The antibiotic was first applied in the form of a solution in benzene, the column washed thoroughly with benzene followed by ethyl acetate and finally by a mixture of ethyl acetate and ethanol. These solvents removed coloured, inactive fractions. The pure antibiotic was eluted with methanol, and recovered by concentration *in vacuo* at laboratory temperature.

Purified flavensomycin consists of pale yellow, odourless tabular crystals, with melting point 152° ± 2° C., soluble in water, lower alcohols and acetates, benzene, pyridine, acetone, dioxane and propylene glycol; insoluble in ether, petroleum ether, hexane, carbon tetrachloride and carbon disulphide. It contains nitrogen but no sulphur or halogens, and gives some reactions associated with carbohydrate but not with protein components. Ehrlich's reaction is positive. The ultra-violet absorption spectrum (20 mmgm./ml. in methanol) has one maximum at 251 mμ, the infra-red has a series of maxima from 3 to 13μ.

Flavensomycin is stable is the dry form and in solution in organic solvents. Aqueous solutions keep best below 18° C., at *p*H 6–7·5.

The lethal dosage in the mouse is 1 mgm./kgm. intraperitoneally, 2 mgm./kgm. subcutaneously and 25 mgm./kgm. orally.

Dilutions in the region of 0·05 mmgm./ml. are active against *Saccharomyces* among the yeasts and *Penicillium* among the filamentous fungi; and higher concentrations (5–50 mmgm./ml.) against a wider range. Bacteria are resistant to concentrations less than 100 mmgm./ml.

Flavensomycin is also active against insects, including *Musca domestica* and *Locusta migratoria*. Using the standard screening techniques, on the former, it has an activity ten times greater than DDT.

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The Generic Name of the Extinct New Zealand Gallinule

During the course of the preparation of a review of the extinct birds of New Zealand and the Chatham Islands, it was discovered that a discrepancy of spelling occurred in the generic name assigned to the extinct New Zealand gallinule found in Pleistocene to Recent sites in New Zealand. Since reference has already been made by me in papers now in the press to this bird from deposits previously described[1–3], I now consider myself the "*First Subsequent User*" of the name, and it seems desirable that the situation regarding the proper use of this name should be made clear.

In 1955 Scarlett[4] described, without figures or comparative measurements, a small rail from Quaternary deposits in the Pyramid Valley swamp, North Canterbury, New Zealand, under the name of *Rallus hodgeni*. Oliver[5], in the revised edition of his book on New Zealand birds, living and extinct, has compared the type pelvis with *Gallinula*, *Tribonyx*, *Porphyrio* and *Notornis*, and concluded that it belonged to a gallinule "closely allied to *Tribonyx*". On p. 595 of his book, he listed this extinct bird as belonging to a new genus, "*Pyramida* N.Gen." (Family Gallinulidae), while further on (p. 596) he gave the type species as "*Pyramidia hodgeni*" from the Pyramid Valley swamp founded on the type pelvis described by Scarlett earlier in the year.